

24. The camera according to claim 23 further comprising:
a display connected to display an image captured by said image sensor including said highlighting.
25. (Please cancel claim 25).
26. The camera according to claim 25 wherein said image compressor implements a lossy image compression algorithm.
27. The camera according to claim 23 further comprising a housing containing said image sensor, display, image processor and memory.
28. The camera according to claim 23 wherein said objects which appear in focus includes objects at different distances from said camera.

REMARKS/ARGUMENTS

All objections and rejections are hereby traversed, and in view of the above amendments and the following remarks, reconsideration thereof is respectfully requested. Claims 1-21, 23-24, and 26-28 are pending in this application.

The Office Action contains an objection to the disclosure for minor informalities and a rejection of claims 1-28 under 35 U.S.C. § 102(b) as being anticipated by Bell et al., 5,103,254 (hereinafter the '254 patent).

The specification has been amended to correct minor typographical errors. As such, the objection to the disclosure should be withdrawn.

The '254 patent discloses a camera with an image sensor (40), a lens (44) for focusing light on the image sensor, a controller (74), and a display (62) (col. 3, line 27 to col. 4, line 25). Figure 4 of the '254 patent, depicts a system controller (74) which controls the functions of the camera, such as an autofocus system. In addition, a gradient operator (70) receives data input from an image sensor (4) and is interconnected with a memory (68). The memory is also interconnected with a display (62). Gradient operator (70) distinguishes portions of image data that represent focused portions of the light image from portions that are not in focus. The controller (70) is a separate structural entity than the gradient operator (70).

The present application presents claims which are patentably distinct from the disclosure of the '254 patent. Claim 1 is directed toward "a method of automatically highlighting focused objects within a preview window." Claim 1 has been amended to recite "disabling highlighting of said near portions and said far portions when an indication has been received." No new matter has been added.

Unlike the method of claim 1, the '254 patent does not disclose "receiving an indication to disable highlighting of said near portions and said far portions" as required by claim 1. Rather the '254 patent merely highlights objects within the depth-of-field (col. 7, lines 51-52). As such, the 102(b) rejection is improper and this rejection should be withdrawn.

Claims 2-5 depend directly or indirectly from claim 1. Each of these claims is considered to be patentable over the applied art. Each includes the limitations of claim 1 and recites subject matter not taught or suggested by the applied art in the claimed combination.

For example, claim 2 adds the additional limitation of "displaying a digital image including said highlighted near and far portions." The '254 patent fails to teach or suggest this limitation. Instead, the '254 patent highlights only a portion of the image and not "near and far portions." That is, the '254 patent merely highlights "the subject selected by the autofocus" so that the subject "appears brighter than the background in the view finder" (col. 3, lines 48-52). As such, the 102(b) rejection is improper and this rejection should be withdrawn.

Independent claim 6 is directed toward a “camera comprising ... a controller configured to adjust a focus of said adjustable focus lens and receive said image data from said image sensor, said controller further configured to distinguish portions of said image data that represents focused portions of said light image from portions that are not in focus.”

Unlike the system of claim 6, controller 74 described in the ‘254 patent does not “receive said image data from said image sensor” as required by claim 6. Rather controller 74 controls camera operations and receives and transmits indications to and from inputs, such as from a shutter release button or to a flash or image sensor (col. 4, lines 40-57). Moreover unlike the system of claim 6, controller 74 does not “distinguish portions of said image data that represents focused portions of said light image from portions that are not in focus” as required by claim 6. Rather controller 74 may only receive indications from various devices and does not process images at all. As such, the 102(b) rejection is improper and this rejection should be withdrawn.

Claims 7-16 depend directly or indirectly from claim 6. Each of these claims is considered to be patentable over the applied art. Each includes the limitations of claim 6 and recites subject matter not taught or suggested by the applied art in the claimed combination.

For example, claim 10 adds the additional limitation of “said controller is configured to determine contrast values of said light image.” The ‘254 patent fails to teach or suggest this limitation. Instead, the ‘254 merely controls “operations of the camera” and does not “determine contrast values.” As such, the 102(b) rejection is improper and this rejection should be withdrawn.

The rejection of claims 17-22 under §102(b) as unpatentable over the ‘254 patent is respectfully traversed. Independent claim 17 is directed toward “a focus highlighting system.” Claim 17 has been amended to recite that “a disabling feature which disables highlighting when selected by a user.” No new matter has been added.

Unlike the system of claim 17, the device disclosed in the ‘254 patent does not “disable highlighting when selected by a user” as required by amended claim 17. Rather the device highlights “for the subject selected by the autofocus or for all subjects within the depth of field in

the scene" (col. 4, lines 22-25). As such, the 102(b) rejection is improper and this rejection should be withdrawn.

Claims 18-21 depend directly or indirectly from claim 17. Each of these claims is considered to be patentable over the applied art. Each includes the limitations of claim 17 and recites subject matter not taught or suggested by the applied art in the claimed combination.

For example, claim 21 adds the additional limitation of "said highlighting includes blinking." The '254 patent fails to teach or suggest this limitation. As such, the 102(b) rejection is improper and this rejection should be withdrawn.

The rejection of claims 23-28 under §102(b) as unpatentable over the '254 patent is respectfully traversed. Independent claim 23 is directed toward a camera and has been amended to recite that "an image compressor configured to perform compression of image data." No new matter has been added.

Unlike the system of claim 23, the '254 patent does not teach "an image compressor configured to perform compression of image data." As such, the 102(b) rejection is improper and this rejection should be withdrawn.

Claims 24 and 26-28 depend directly or indirectly from claim 23. Each of these claims is considered to be patentable over the applied art. Each includes the limitations of claim 23 and recites subject matter not taught or suggested by the applied art in the claimed combination. As such, the 102(b) rejection is improper and this rejection should be withdrawn.

In summary, in view of the remarks above, the rejections of claims 1-21, 23, 24 and 26-28 under 35 U.S.C. § 102(b) are overcome and withdrawal thereof is respectfully requested.

CONCLUSION

It is submitted that claims 1-21, 23-24, and 26-28 each recite features that are not shown or suggested by the prior art of record. In view of all the foregoing reasons, Applicant respectfully submits that the present application is in condition for allowance, and such allowance is earnestly solicited. Should the Examiner have any questions, comments or suggestions, he is invited to contact the undersigned by telephone at his convenience.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-2025, under Order No. 10005759-1 from which the undersigned is authorized to draw.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:
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Date of Deposit: 09/24/02

Typed Name: Kristin Mattern

Signature: K Mattern

Respectfully submitted,

By R. Ross Viguet
R. Ross Viguet
Attorney/Agent for Applicant(s)
Reg. No.: 42,203

Date: 09/24/02

Telephone No. (214) 855-8185

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

FIGURE 2 is a flow diagram of a procedure used by a system to highlight the regions or areas of the image which are in focus. In step 1[2]01, a first region is selected for analysis. In step 1[2]02, the region is checked to determine if it has been marked as in-focus or out-of-focus. If the region is not marked, flow returns to FIGURE 1. If the analyzed region is marked as in-focus, step 1[2]03 determines the edge of the region. If edges are found in step 1[2]04, then these edges are highlighted in step 1[2]05. Highlighting may include blinking the identified portion of the object, reversing its color scheme, enclosing the focused section within a box, or similar highlighting techniques. If edges are not detected in step 1[2]04 or, after the detected edges are highlighted in step 1[2]05, the procedure continues by determining if additional regions are present which must be checked for in-focus markings. If additional regions are available step 1[2]07 selects the next region and the process continues in step 1[2]02. If, however, all regions have been checked the procedure is completed.

In the claims:

1. (Amended) A method of automatically highlighting focused objects within a preview window comprising the steps of:
 - receiving a digital representation of an image;
 - determining a near focus distance;
 - identifying near portions of objects within said image at said near focus distance;
 - determining a far focus distance;
 - identifying far portions of objects within said image at said far focus distance; [and]
 - highlighting said near portions and said far portions of said objects within said image;
 - disabling highlighting of said near portions and said far portions when an indication has been received.

2. (Amended) The method of claim 1 further including the [stop] step of:
displaying a digital image including said highlighted near and far portions.

17. (Amended) A focus highlighting system comprising:
a processor for highlighting focused portions of an image;
an autofocus mechanism configured to determine portions of an image within focus;
a display configured to display a digital image including highlighting; [and]
a memory configured to store said digital representation of said image; and
a disabling feature which disables highlighting when selected by a user.

22. (Please cancel).

23. (Amended) A camera comprising:
an image sensor;
an image processor configured to determine portions of objects which appear in focus
and to highlight said portions; [and]
a memory configured to store said image captured by said image sensor; and
an image compressor configured to perform compression of image data.

25. (Please cancel).